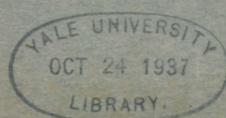


Ruth Wheeler
Physical Therapist
11 Dept.



HANDBOOK
ON
QUARTZ LIGHT THERAPY
FOR USERS OF THE
ALPINE SUN LAMP

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HANDBOOK
ON
QUARTZ LIGHT THERAPY
FOR USERS OF THE
ALPINE SUN LAMP

Second Edition

Published by

HANOVIA CHEM. & MFG. CO.

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Birrell-Brown Co., Inc., Newark, N. J.

FOREWORD

For the benefit of our friends who are using the Alpine Sun Lamp in their daily practice, we have endeavored to include in the following pages detailed instructions for the application of the actinic rays, over a wide field of indications. We wish to emphasize the fact that this book is issued solely for their use and guidance, and not in any sense for advertising purposes.

In compiling the matter presented, we have endeavored to embody the major portion of what has been written regarding technic and to bring the methods used by different authors into conformity with each other in order to evolve a practical working guide for all. There may be mention of modes of treatment adopted, where the value of the lamp is at least problematical in the diseases treated. It will be understood that we cannot stand sponsor for all the several claims made by various writers. We have tried to indicate somewhat the extent of authority for the claims made regarding the various diseases treated, and if any of our friends have used the lamp on a series of cases in a manner outlined for the technic of such cases, and have secured only negative results, we would be deeply indebted to them for their co-operation in eliminating unfounded or over-enthusiastic reports from future editions.

We take this opportunity of acknowledging our indebtedness to authors from whose writings we have culled much of the detail here presented.

We trust the work will serve its purpose by enhancing the therapeutic value of the lamps to their users.

HANOVIA CHEMICAL & MFG. CO.,
Newark, N. J.

July, 1920.

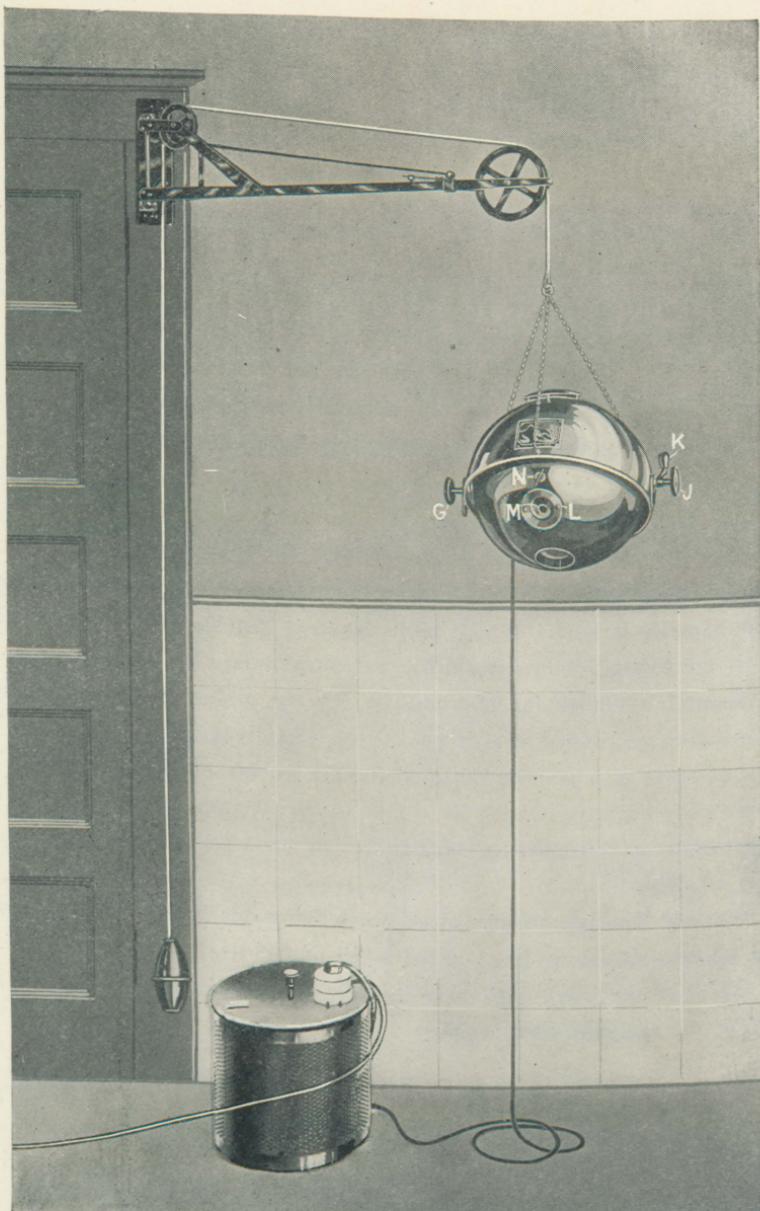


FIG. 1. ALPINE SUN LAMP WITH WALL BRACKET SUSPENSION
A. C. Type

DESCRIPTION

The Alpine Sun Lamp consists of a quartz burner which constitutes the source of light. The burner is mounted in the interior of a highly polished aluminum globe or hood made in two halves. The lower hemisphere is rotated about a horizontal axis by means of the hand wheel J (Fig. 1) and is locked in any desired position by the locknut K for the purpose of directing the rays. For local radiations at short distance an aperture L is provided, furnished with a selective shutter to give openings of various sizes. One of these apertures is furnished with a colored glass for the purpose of observing the burner without injury to the eyes. The lamp body is provided at the top and bottom with ventilator openings to prevent overheating.

THE DIRECT CURRENT RHEOSTAT. The direct current rheostat serves the purpose of stabilizing the light and protecting the burner when lighted. It is provided with a flexible cord to connect it to the ordinary lighting circuit and on top of it is mounted an indicating switch to turn on and off the current. The current is conveyed from the rheostat to the lamp hood by means of a separate flexible cord.

THE RHEOSTAT-TRANSFORMER FOR ALTERNATING CURRENT. This serves for the alternating current lamp the same purpose as the rheostat for the direct current lamp. The apparatus is mounted in a perforated metal case and is provided with an indicating switch and two flexible cords, one terminating in a screw plug to attach to the current supply, the other terminating in a black plug which connects to the lamp hood. On the top of the transformer is a small plunger rod terminating in a wooden button, which, when pushed down, acts as an intensifier. *The intensifier should never be pushed down until the lamp has been burning six to eight minutes.* The intensifier will not work satisfactorily if the current voltage is not steady. In such cases it may be disregarded, but radiations will be increased in length about 20%.

THE QUARTZ BURNER. The quartz burner consists of an arc tube A (Fig. 2, page 8) two transverse mercury containers BB to which the current is brought in through the beaded leads EE and mercury sealed electrodes DD. Fan-shaped metal coolers FF are mounted on the mercury containers and serve to diffuse the heat generated at the electrodes, thus regulating the operation of the burner. The direct current burner has two electrodes; one positive (left end in illustration) and one negative (right end in illustration). The Alternating Current Burner (Fig. 3, page 9) has two positive electrodes (at left in illustration) and one negative (at right).

THE FLOOR STAND. The most popular method of mounting the lamp is upon the movable floor stand as shown in Fig. 4, page 18. This consists of a tripod base equipped with ball bearing casters and noiseless wheels, and

a nickeled steel pillar. The lamp is balanced by a counterweight and provided with a bracket by means of which it may be held on the stand at any desired height. This stand also carries the rheostat for the direct current lamps, thus making a well-balanced, convenient and self-contained outfit.

CEILING SUSPENSION, by means of cord, pulleys, and counterweight as shown in Fig. 5, page 25, may be resorted to where it will be satisfactory to use the lamp in one fixed position, as for instance for sun bath treatment (general body radiations), given simultaneously to several patients reclining on bed or couch.

THE WALL BRACKET shown in Fig. 1 is found convenient in small offices or where floor space must be economized. The bracket swings on hinges and is provided with pulleys and counterweight accurately balancing lamp at any desired height. The arm has adjustable extension with a radius up to four feet and is handsomely finished in oxydized copper.

THE HAGEMANN RING. Hanging Alpine Sun Lamps can be fitted with rings carrying eight incandescent electric lamps as shown in Fig. 7. These are used to simulate as closely as possible natural sun light (containing more heat rays than quartz light) and to give a sense of comfortable warmth to patients receiving general radiations. By switching on only certain of the lamps and by using bulbs of different candle power, any desired degree of radiant heat can be produced.

HOW TO SET UP LAMP

After the lamp has been unpacked and each item checked carefully against the packing list, it should first be decided where the lamp is to be placed. If the lamp is for ceiling suspension or wall bracket, have the pulleys or bracket securely fastened in place by a competent carpenter. The direct current lamp with either type of suspension has a separate rheostat, which the carpenter may also hang on the wall as shown in the illustration, page 25.

If the lamp is provided with floor stand, fasten securely the nickel-plated upright in the tripod base by means of the wing screw provided for that purpose. The rheostat is mounted on the stand; in all other types the rheostat or transformer is separate. The transformer for the Alternating Current lamp may stand on the floor in a position where unnecessary moving is avoided.

Two flat enameled brackets are provided with the Direct Current floor stand, for mounting the rheostat on the stand. The first one is slipped over the top of the upright with its smooth side towards you. The two projecting

lugs on the bottom of the rheostat are then passed behind the bracket, so that the holes in them engage the two studs provided on the bracket. Then, lowering rheostat until the top of it is level with the top of the upright, the second bracket (also smooth side towards you) is made to engage by its two studs the holes in the top lugs on the rheostat, and the upright passes through the hole provided in the top bracket. The rheostat with its holding brackets thus becomes a stable unit, which is lowered to the bottom of the stand and allowed to rest on the tripod base.

Next take the ring clamp and secure it in position by its wing screw at a convenient height on the upright, to carry the weight of the lamp body. Now take the lamp bracket with counterweight attached and place it on the upright, resting it on the ring clamp with its small wing screw at the top. This wing screw is used only to prevent the lamp being swung around on the upright, or to hold the weight of the lamp body temporarily, while the ring clamp is being raised or lowered on the upright. *Before lowering lamp body, always make certain that this wing screw is tightened*, thus preventing the lamp from dropping suddenly when ring clamp is lowered. Now place the ornament on the top of the upright. The ornament is provided with a double spring to hold it securely in place.

Next take the lamp body and placing the left hand on the side of the hood, the back of the hood is brought up to the lamp bracket on the upright and the square plug pushed home into the socket provided for it in the lamp bracket and secured in place by the small set screw which pierces the side of the socket.

The next operation is to connect the rheostat to the lamp body by means of the flexible cord, attaching the white plug to the receptacle on the rheostat, the black plug to the three prongs provided to receive it on the outside of the hood.

The suspension rope for either type of suspended lamp has a split hook attached to the free end. After bracket or pulleys have been placed in position this rope may be led over the pulley-wheels by drawing the free end over the pulley nearest the wall and down over the pulley from which the lamp body hangs. The suspended hook may then be slipped over the ring to which the chains on the lamp body are attached and the ends securely closed with fingers or pliers. The black plug on the end of the flexible cord from either rheostat or transformer is then pushed on to the three prongs provided for it on the outside of the hood.

All lamps are provided with a flexible cord attached to the transformer or rheostat to connect same with the lighting circuit by means of a screw plug. The screw plug fits any standard electric lamp socket. Where necessary, an electrician can quickly replace this plug by any special plug to fit

your outlets. The house wiring should be provided, for the Direct Current lamp, with a 15 ampere fuse; for the Alternating Current lamp, a 20 ampere fuse.

To mount the burner in place, first open wide the revolving hood, then remove the thumb nuts from the ends of the two horizontal rods destined to carry the burner. The burner is then placed in position on the horizontal rods, the right hand rod passing through the two eyelet holes on the coolers of the negative electrode vessel. When sliding the burner into position, the index finger of the left hand should hold up the short link on the rod running between the coolers on the left hand end of the burner, so that the supporting

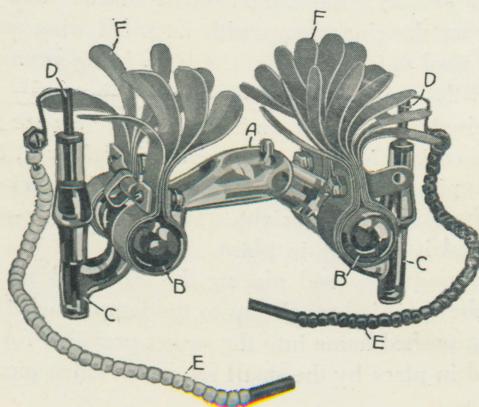


FIG. 2. QUARTZ BURNER
Direct Current Type

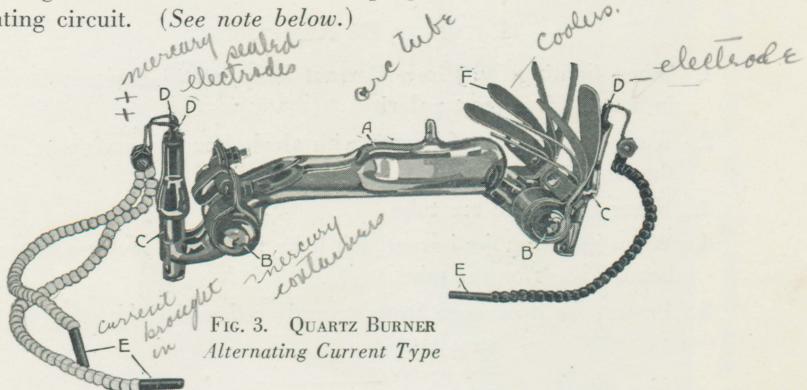
rod in the lamp body passes through the link, suspending the burner by means of the link. The fan-shaped coolers on the burner should point upwards, the position of the burner being shown in the illustration, page 21. Next replace the thumb nuts on the ends of the supporting rods and fasten the terminal lugs on the beaded leads into the binding posts on the right and left interior of the hood respectively.

LIGHTING THE LAMP

After the lamp is connected as described above, first wash off the arc tube of the burner with alcohol, and before switching on the current, rock the burner by means of the hand wheel G, Fig. 6, as far as it will go, to make sure that the mercury flows freely and that the negative container is full of mercury. Then allow the burner to come back to its original horizontal position. Now switch on the current and repeat the tilting of the

burner. As soon as the mercury stream makes a contact between the two electrodes, allow the burner to fall back into its original horizontal position, establishing the arc of light.

With the direct current lamp, when tilting the burner in this way to light the lamp, observe the current direction indicator H, Fig. 5, just behind the hand wheel G. *It is essential in the direct current lamp that the current flows through the burner in the indicated direction.* If the current direction indicator swings to "Right" the polarity of the current is correct. If it swings to "Wrong" the current should be switched off at once and the polarity changed by reversing the two wires in the screw plug where the lamp is attached to the lighting circuit. (See note below.)



This precaution is not necessary with the alternating current lamp. With the alternating current lamp, however, the rocking of the burner may have to be repeated several times to successfully light the lamp. The reason for this is that the breaking of the mercury stream must correspond with a definite period in the oscillation of the alternating current. It occasionally takes several attempts before this happens to coincide. Immediately after lighting the lamp, the light emitted is comparatively weak and gradually increases as the burner warms up (from five to seven minutes). Treatment should not begin until the full intensity is reached.

WARNING!

The ultra violet rays of the lamp, on which its therapeutic value depends, will produce a painful conjunctivitis after a few seconds' exposure of the eyes close to the burner. Those operating the lamp should therefore protect

To avoid the necessity of frequently changing connections in plug, it is advisable to have all receptacles where the lamp may be connected of like polarity.

their eyes by the glass goggles provided for that purpose. Ordinary glass absorbs the ultra violet rays and will prevent any injury to the eyes.

The conjunctivitis produced in this way usually manifests itself four or five hours after exposure. This point should be carefully borne in mind as the danger is much greater on that account. The effect is the same as that produced by the sun in glacial regions, where the ultra violet rays exert their full power, unhindered by dust, smoke or water vapor of the normal atmosphere. As, apart from quartz, almost all substances are opaque to ultra violet rays, thin sheets of glass, mica, paper or cloth afford ample protection from the rays.

POINTS TO BE REMEMBERED

1. When lighting the Direct Current lamp, watch the current direction indicator for correct polarity.
2. Wash off arc tube of burner with alcohol each morning before using the lamp.
3. Never finger the arc tube.
4. When handling the burner, lift it by the metal coolers; never by the beaded leads or arc tube.
5. Protect the eyes, even from strongly reflected light.

GENERAL BODY RADIATIONS

In cases of generalized skin eruptions and in those cases such as pulmonary and surgical tuberculosis, anemia, senile pruritis and some constitutional and nervous diseases where it is desired to utilize the systemic effect of the ultra violet rays upon the bodily economy, general body radiations are indicated and may be administered in the following manner:

After lighting the lamp, it should be allowed to burn for at least five minutes before treatment is commenced. The lamp does not reach its maximum constant intensity until five minutes have elapsed from the moment of lighting.

The patient is placed upon a flat couch during the treatment, the body being entirely naked. It is well to advise the patient to relax completely and to keep his mind entirely at ease during the radiation. It will often be found that patients who do this will be gradually overcome by a sense of drowsiness and sink into a profound sleep.

The skin of the entire body must be directly exposed to the rays, as the

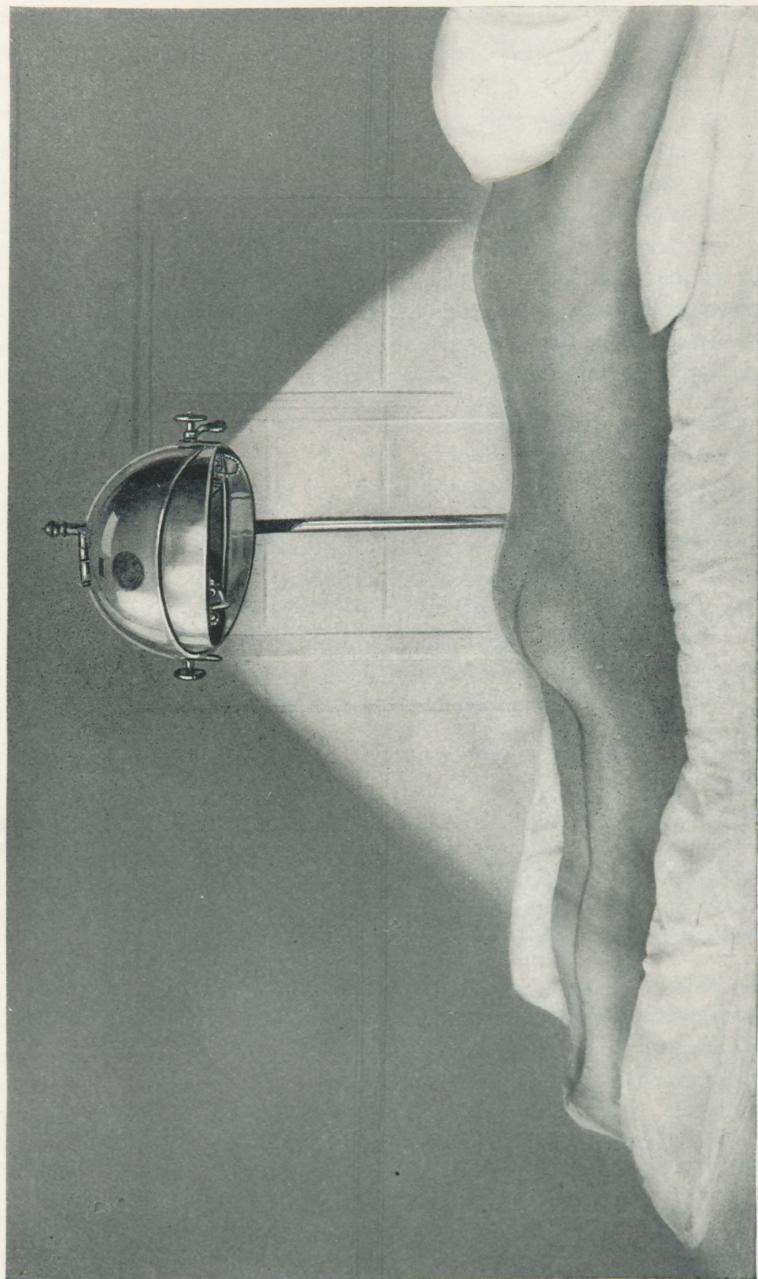


PLATE A—GENERAL BODY RADIATION WITH ALPINE SUN LAMP MOUNTED ON FLOOR STAND

thinnest covering will absorb most of the rays which fall upon it. When treating women, the nipples may be suitably protected by small paper bottle caps of the druggist style.

First exposure: Time, 3 minutes; distance, 3 feet. In giving general radiations, both the anterior and posterior portions of the body should be radiated for the time stated. The posterior first, then the anterior. At the second and subsequent treatments the time of exposure may be increased by three minutes until a maximum of twenty minutes is reached. Up to now the distance of the lamp from the body should remain constant at 36 inches. After the seventh treatment the time of exposure should remain constant and the distance from the lamp be gradually reduced by 6 inches at each treatment until a minimum distance of 18 inches is reached.

Treatment should be repeated every second day for the first three exposures, thereafter twice weekly. In all cases, however, the patient's tolerance must be carefully borne in mind and the increase in dosage regulated accordingly. When the dosage administered has been full, a sensitive patient may suffer from headache, ringing in the ears, and a general feeling of lassitude. This, however, seems attributable in part to the inhalation of ozone generated by the lamp, and whether or not same may be beneficial in certain cases, these symptoms soon disappear upon reaching the fresh air. They may, if desired, be minimized by the use of a small fan directed so as to produce a cross current of air beneath the lamp away from the patient.

Only in the case of a very sensitive patient will there appear during the radiation a slight reddening of the skin. In three or four hours after the treatment, the exposed area develops a decided redness which may proceed to vesication if the radiation has been intense. Radiating to vesication, however, is not usually desirable in a general radiation. The erythema gradually subsides during two or three days, leaving the usual extra cellular pigmentation resultant from sunburn.

The object in view when administering general radiations for systemic effect is to produce a gradual deep tanning of the entire body without vesication or undue peeling. It is sometimes recommended after twelve or fifteen exposures that an intermission be made of three or four weeks before resuming treatment. When treatment is subsequently resumed, short exposures must again be given at first, since the patient has by that time lost most of the "tan" and with it the immunity to burning.

The above treatment may be followed in all cases where in the subsequent pages general radiation is indicated. The eyes must be carefully

protected, since a few seconds' exposure would cause an unpleasant, though not dangerous, conjunctivitis. The light-proof goggles may be worn by the patient or small wads of absorbent cotton placed over the eyes. The most simple and satisfactory method in the case of adults is to keep the eyes shut when facing towards the light.

LOCAL RADIATIONS

Lesions which are quite small may be radiated through the selective diaphragm, holding the lesion within an inch or two of the lamp hood. All other local radiations are administered with the lamp hood open. Whether the rays are allowed to issue vertically or horizontally, the lamp should be so placed that the arc tube of the burner is parallel with the surface under treatment.

According to the area to be treated, the patient is placed in the best possible position in relation to the lamp. The surrounding areas should be protected by a covering of an opaque material such as a black cloth and when treating women, the operator should be careful to give additional protection if the patients are wearing thin waists with wide meshes. The rays will penetrate thin material to some extent and produce mild reactions.

In treating lesions upon the face, care should be taken to protect the eyes either by dark glasses with side flaps or other suitable means. Accidental conjunctivitis or skin burns which may result are absolutely harmless and never result in lasting injury.

Details of distance, length of exposure, etc., will be found in the following pages under the respective diseases mentioned.

All exposures given are for the alternating current lamp with intensifier in operation. *For direct current lamp or for alternating current lamp where intensifier is not used, increase time of exposures twenty per cent.*

The technical directions for treatment of patients are based on reports of satisfactory results in the diseases mentioned. Each case, however, demands careful observation and due consideration of the tolerance of patient's skin under exposure to the rays.

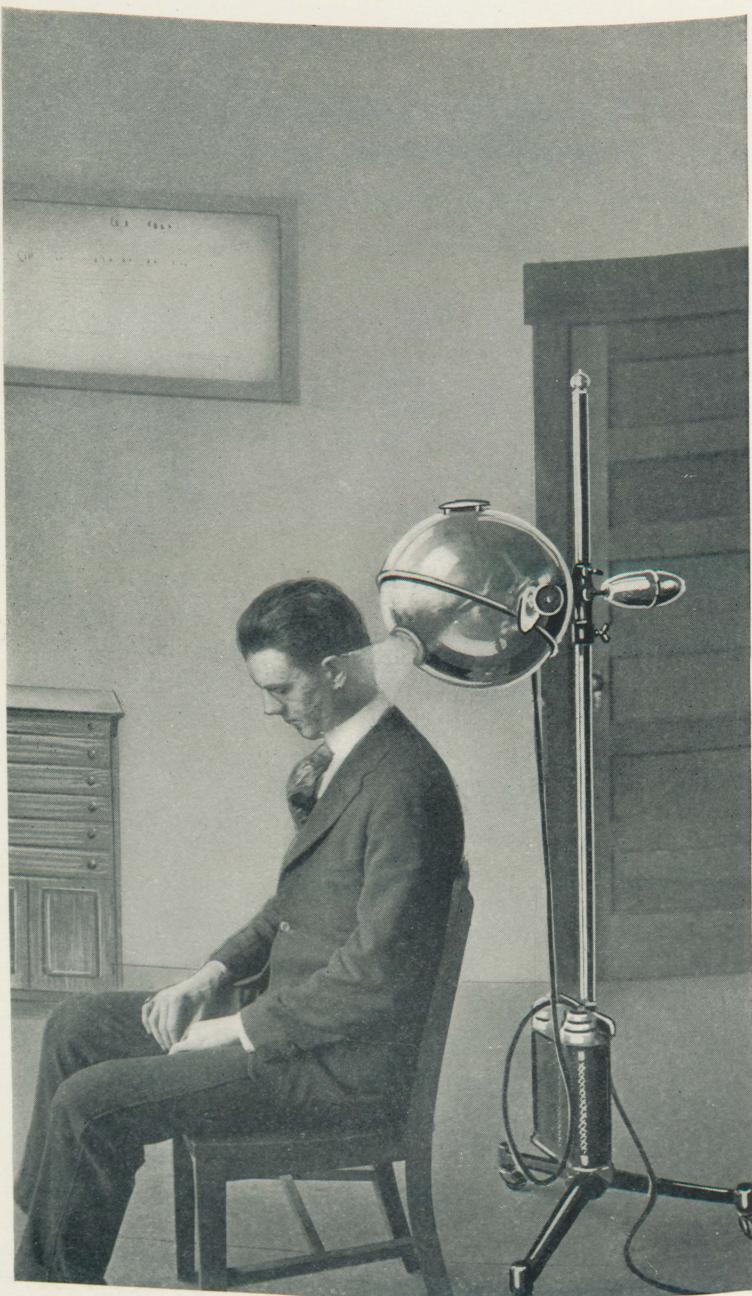


PLATE B—LOCAL RADIATION THROUGH DIAPHRAGM

ACNE:

Many of the leading Dermatologists claim the Alpine Sun Lamp to be the best, quickest and safest modality at their disposal for the treatment of acne, its use being indicated in all forms of this disease. Where the patient is suffering from some digestive disorder, the skin may clear up nicely, but subsequently relapse. In such cases the local applications may profitably be supplemented by general radiation of the entire body (see page 10) with suitable internal medication. It is well to inform the patient regarding the expected reaction in this treatment, for in some cases a marked erythema up to considerable vesication will take place after the first treatment, much like a severe sun-burn. The patient's mind should be set at ease by the assurance of no harmful results, as those of a nervous disposition may become alarmed when they discover a very red face a few hours after treatment. A pronounced reaction is desired, resulting in peeling, and the temporary inconvenience is vastly over-balanced by the improved complexion which follows.

TECHNIC:

Place a small pladgett of cotton over eyelids, filling in the space below the eyebrows so that light will not reach eyelids; hold the cotton in place by tying it in position with thread passed around the head. *Do not cover eyebrows* and see that hair is brushed back so that rays can reach the edge of scalp. It is also advisable, when treating ladies with delicate skin, to cover the ears.

In pustular acne it is well to express the pustules immediately before treatment, cleansing the parts with alcohol so that the area to be treated will be entirely free from foreign matter. According to the delicacy of the skin of the patient to be treated expose each side of the face as indicated below:

Distance from Lamp:

15 to 20 inches.

Time of exposure:

One to three minutes.

Frequency of Treatment:

Repeat as soon as desquamation has been complete, increasing each subsequent exposure one to three minutes or more if necessary.

The treatment of the sides of the face should be followed by a one or two minute exposure of the front of face.

ALCOHOLISM:

The Alpine Sun Lamp proves a valuable adjuvant to other treatment. Moderately severe burning over entire body is advised.

TECHNIC:

Distance from Lamp:

24 inches.

Time of exposure:

First treatment eight minutes, back and front, increasing two minutes each radiation to maximum tolerance.

Frequency of Treatment:

Two or three days' interval.

ALOPECIA:

In the treatment of various forms of alopecia, it is a well recognized fact that the ultra violet rays produced by the Alpine Sun Lamp act as a powerful stimulant to the growth of hair, where there are any hair follicles to be stimulated. It is not uncommon to see a good growth of hair brought forth on an entirely bald head if the functions of the hair follicles have not been destroyed. In most cases of alopecia areata, especially in persons up to forty or fifty years of age, the results that are obtained by treatment with the Alpine Sun Lamp are very gratifying, depending, in some measure, on the duration of the disease. In alopecia pityroïdes very encouraging results are obtained by using local and general body radiations to stimulate metabolism. In case of alopecia universalis, following fever or nervous disease, the Alpine Sun Lamp will in many cases bring forth a complete regeneration of the hair. One author reports a series of two hundred cases treated with the Alpine Sun Lamp—of these there were one hundred and thirty-two cases of alopecia areata, fifty-three cases of alopecia seborrhoëcia or prematura, twenty-two cases of total baldness. All of the fifty-three cases of alopecia seborrhoëcia or prematura were subsequently discharged cured. Not only did the itching and pain disappear, but the scales also were removed, the hair was regenerated and new normal hair appeared in place of the old hair which had fallen out. Of the one hundred and thirty-two cases of alopecia areata, eighty per cent were cured, sixteen improved, while only eight remained unimproved. Of the twenty-two cases of total baldness all but eight were cured, some improved, while a few remained without benefit.

TECHNIC:

The two methods of treatment most used are here indicated.

I.

Distance from Lamp:

12 to 15 inches, subsequently 10 inches.

Time of exposure:

Ten to fifteen minutes, subsequently increased to thirty minutes.

Frequency of Treatment:

Two to three weeks.

II.

Distance from Lamp:

15 inches.

Time of exposure:

Three minutes, subsequently one minute longer to maximum of ten minutes.

Frequency of Treatment:

Two to three days.

The second method avoids the extensive vesication produced by the severe burning, but necessitates prolonged, frequent attendance of the patient.

AMENORRHEA:

See Gynecology.

Many leading gynecologists use the Alpine Sun Lamp in the treatment of amenorrhea as an aid to other modalities. It is especially indicated if the patient is chlorotic or anemic.

TECHNIC:

General body radiations (see page 10) with intensified radiations over abdomen and lumbar region, giving double the exposure over these parts. In some cases use is also made of the Kromayer Lamp, giving direct radiations through a speculum.

ANEMIA:

The Alpine Sun Lamp is of great benefit in the treatment of anemic patients, in conjunction with proper dietetic and hygienic measures. It is found that patients' appetites quickly improve, their general vitality is increased and betterment of their general condition is effected.

TECHNIC:

General radiations over entire body (see page 10).

The technical directions for treatment of patients are based on reports of satisfactory results in the diseases mentioned. Each case, however, demands careful observation and due consideration of the tolerance of patient's skin under exposure to the rays.

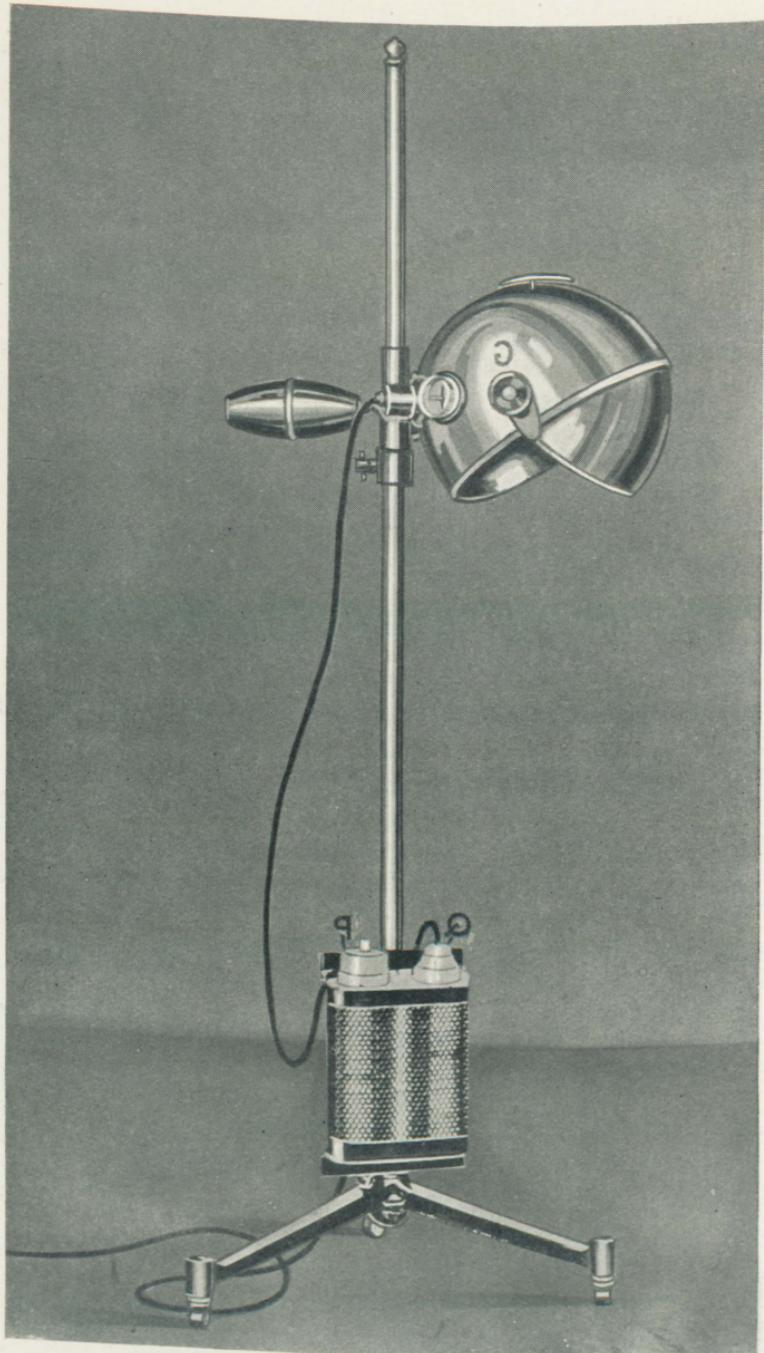


FIG. 4. ALPINE SUN LAMP MOUNTED ON FLOOR STAND
Direct Current Type

ANKYLOSIS:

Numerous reports show gratifying relief obtained by the use of the Alpine Sun Lamp, the patella becoming free and the cicatrices which were firmly adherent to the capsule of the joint being again freely movable.

TECHNIC:

Distance from Lamp:

First three treatments 24 inches, reducing subsequently 3 inches each time to a minimum of 15 inches.

Time of exposure:

First treatment five minutes, increasing three minutes each exposure up to fifteen minutes.

Frequency of Treatment:

Three to four days' interval.

See also under Tuberculosis.

ANTHRAX:

Quartz light therapy is recommended for the treatment of this condition if taken in its early stages. The Alpine Sun Lamp is indicated for the toxemia that accompanies anthrax. The local lesion should be given intensive treatment with the Kromayer Lamp in conjunction with general body radiations with the Alpine Sun Lamp.

TECHNIC:

Local application over lesion with the Kromayer Lamp, with suitable lens, using compression if possible, lamp fully intensified, for a period of five to ten minutes. Repeat the treatment as often as possible, increasing time of exposure by several minutes. Give general body radiations daily or twice daily with the Alpine Sun Lamp. (See page 10.)

ARTERIOSCLEROSIS:

General body radiations with the Alpine Sun Lamp are employed as an aid in the treatment of arteriosclerosis and by reason of the resultant increase in the rate of elimination, material benefit is claimed. This treatment is highly recommended by some authors.

TECHNIC:

General body radiations. (See page 10.)

ARTHRITIS:

The local stimulation and increase in the elimination are reported as of material help in clearing up cases of hypertrophic, rheumatoid and gonorrhreal arthritis. At the same time a course of general body radiations may well be given to raise the patient's vitality and stimulate general

metabolism. One of the most satisfactory features of this treatment is the rapidity with which the painful element is controlled.

TECHNIC:

General body radiations (see page 10) increasing time of exposure over the local affected areas to double that given the rest of the body.

ASTHMA:

Despite the conflicting prevalent ideas regarding the etiology and treatment of asthma there seems good reason to believe that the Alpine Sun Lamp, by virtue of its action on the nervous system as well as its stimulating effect on the body metabolism, may prove of pronounced value in the treatment of this disease. One author claims that he has had conspicuous success with the Alpine Sun Lamp in the treatment of bronchial catarrh, emphysema and bronchitis, and bronchial asthma. Other reports show gratifying results and surprising relief, apparently permanent in severe cases of bronchial asthma.

TECHNIC:

General body radiations (see page 10).

BLOOD PRESSURE—Effect on:

From published reports it seems certain that in cases of high blood pressure general body radiations produce a gradual lowering of same, accompanied by relief of the heart, improvement of the appetite and of the patient's general condition.

TECHNIC:

General body radiations (see page 10).

BRUISES AND HEMATOMATA:

One author claims to have healed rapidly five cases of bruises and hematomata and another upward of ten cases of infected bruises, by treatment with the Alpine Sun Lamp.

TECHNIC:

Distance from Lamp:

24 inches.

Time of exposure:

First treatment three minutes, increasing one minute each subsequent treatment.

Frequency of Treatment:

Two days' interval.

BURNS:

Healing of severe burns may be greatly accelerated by the local

stimulation of mild radiations with the Alpine Sun Lamp. It is stated that the bactericidal power of the actinic rays also diminishes the risk of infection.

TECHNIC:

Distance from Lamp:

30 inches.

Time of exposure:

First radiation three minutes, increasing one minute with each successive treatment.

Frequency of Treatment:

One to three days' interval.

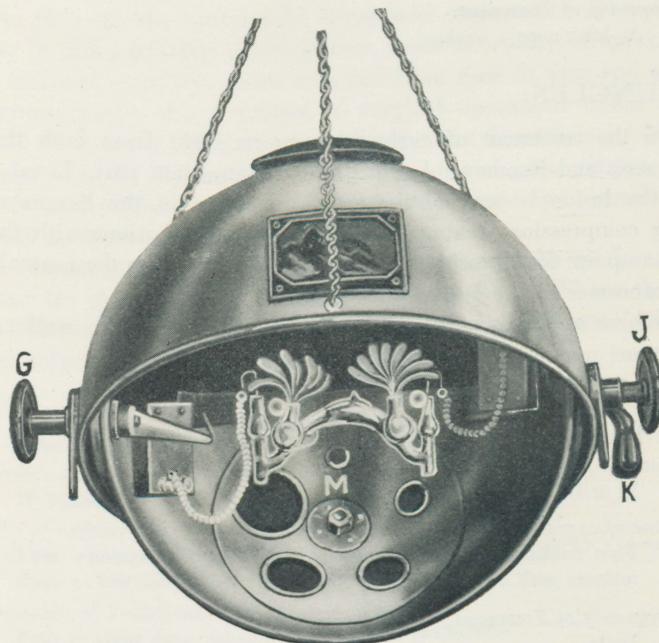


FIG. 6. ALPINE SUN LAMP WITH REFLECTOR LOWERED TO SHOW BURNER,
TILTING MECHANISM AND REVERSE SIDE OF SELECTIVE SHUTTER

CANITIES:

Claims have been made of successful treatment of premature gray hair. Treatment, however, is a long, tedious operation, especially with women whose hair is comparatively abundant. It is necessary to expose

every part of the scalp to the rays of the lamp, and this can only be done by parting the hair and treating successively each furrow. This procedure requires a great deal of time and patience on the part of the operator as well as the patient. The following treatment will probably cause the scalp to peel after a few exposures and in a short time it will have a very healthy appearance and be gratifying to the patient whether or not the real object is achieved.

TECHNIC:

Distance from Lamp:
12 to 15 inches.

Time of exposure:
First exposure five minutes over each parting of the hair.

Frequency of Treatment:
At least once a week.

CARBUNCLES:

In the treatment of carbuncles quartz light from both the Alpine Sun Lamp and Kromayer Lamp plays an important part. Local radiation over the lesion is best administered by means of the Kromayer Lamp, giving compression treatment. General body radiations with the Alpine Sun Lamp are found to be of assistance by stimulating the normal elimination processes of the body.

Where a Kromayer Lamp is not available, local as well as general radiations may be given with the Alpine Sun Lamp.

TECHNIC:

Local Treatment:

Distance from Lamp:
12 or 15 inches.

Time of exposure:
First treatment three minutes, increasing time of exposure one to two minutes with each subsequent radiation.

Frequency of Treatment:
Daily.
General body radiations (see page 10).

CARDIAC DISEASES:

Claims are made by some authors of striking improvements in many cases of heart trouble with failure of compensation (insufficiency of the mitral valve, dilatation, arteriosclerosis of the heart, and cardiac neurosis). A deeper respiration results after each treatment and the pulse

grows fuller and slower. Patients suffering from dyspnea due to cardiac insufficiency, breathed more freely after treatment with the Alpine Sun Lamp.

TECHNIC:

General body radiations (see page 10).



CATARRH—BRONCHIAL:

See Asthma.

CATARRH OF THE CERVIX UTERI:

See Gynecology.

CERVICAL LYMPH GLANDS; TUBERCULOUS:

In view of the universally recognized importance of quartz light therapy in this particular manifestation, it seems worthy of special notice. Many brilliant cases have been reported from time to time and authoritative writers prefer this treatment to surgical operations where such can possibly be avoided. Where surgical operation is necessary, subsequent treatment with the Alpine Sun Lamp has proven of great service. In most cases a course of general radiations may advantageously be combined with the local treatment of the lesions.

A careful study of each individual case should be made accurately to adapt the dosage to the tolerance of the patient. Where the patient shows otherwise normal physical condition there will generally be found a better tolerance for the ultra violet rays.

TECHNIC:

Local Treatment:

Distance from Lamp:

12 inches.

Time of exposure:

First treatment five to ten minutes, increasing subsequent exposures three to five minutes.

Frequency of Treatment:

Four to eight days, according to reaction produced.

Compression treatment with the Kromayer Lamp is often employed under firm approximation of the lens—five to thirty minutes' exposure, using the blue filter.

General body radiations (see page 10).

CERVICAL EROSIONS:

CERVICITIS:

See Gynecology.

CHLOROSIS:

See Anemia.

CHOREA:

Decided benefit is claimed for quartz light therapy by one author who writes: "Good results were observed in a girl ten years old. The spasmotic movements of the face and hands disappeared after twelve treatments, each of which lasted five to fifteen minutes, with lamp at 24 inches distance, and the general condition improved."

TECHNIC:

General body radiations (see page 10).

COLPITIS GRANULARIS:

See Gynecology.

DERMATITIS VENENATA:

Particularly of the ivy poison type, responds readily to treatment with the Alpine Sun Lamp. The painful stinging and burning is usually relieved after the first or second exposure. The rays appear to stop the spread of the disease and should be administered over the surrounding skin as well as the actual lesion.

TECHNIC:

Distance from Lamp:

First treatment 3 feet, gradually decreasing 6 inches with each successive treatment to a minimum of 18 inches.

Time of exposure:

Five minutes, increasing two to three minutes each subsequent exposure to a maximum of fifteen minutes.

Frequency of Treatment:

First three treatments every second day, thereafter twice weekly.

DIABETES:

Insipidus:

Mellitus:

One author states that through the use of the Alpine Sun Lamp he observed excellent results in the treatment of diabetes Insipidus, one case in particular in a man thirty-seven years old. The disease had appeared after a serious mastoid operation and had lasted twenty-three years.

In diabetes mellitus the blood pressure was reduced and the general condition improved.

TECHNIC:

General body radiations (see page 10).

* [NOTE: According to the best authorities Quartz Light treatment is contraindicated.]

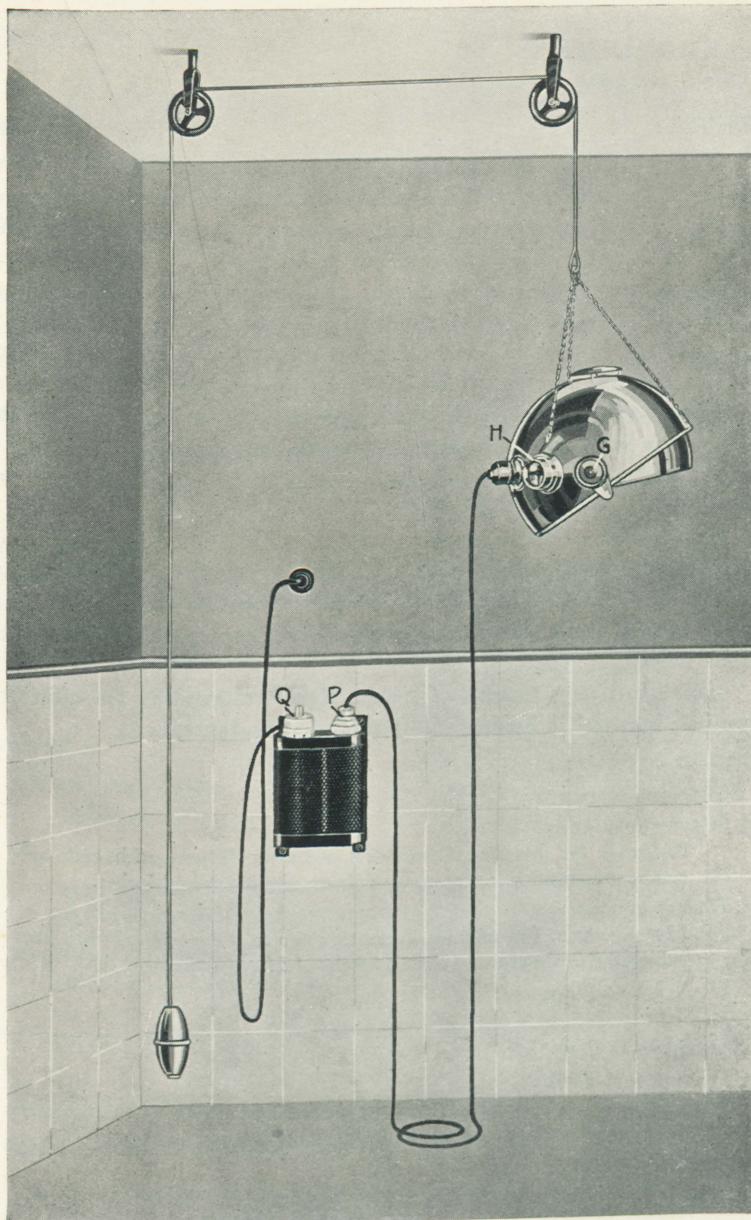


FIG. 5. ALPINE SUN LAMP WITH CEILING SUSPENSION
Direct Current Type

DYSMENORRHEA:

See Gynecology.

ECZEMA:

To produce the best results it is necessary to differentiate between chronic and acute cases. Where marked infiltration and thickening occur, much more prolonged exposures are necessary, since the outer epithelial layers absorb most of the rays falling upon them. Where marked crusting occurs the crusts should first be removed, using liberal applications of olive oil. In both the varicose and sclerotic types profound stimulation is necessary and in some cases compression treatment with the Kromayer Lamp may prove essential for a proper penetration of the rays.

The reaction of the individual patients will be found to vary markedly and in most cases a course of general body radiation combined with proper laxative measures and copious drinking of distilled water proves a great help.

In acute cases of the weeping type the initial treatments may be quite mild. Some cases which prove refractory under strong dosage clear up quickly under mild stimulation, and it is generally conceded that most cases which show unsatisfactory progress are traceable to a faulty technic in the particular case.

One gratifying feature of quartz light treatment is the quick relief from the intolerable itching so often accompanying eczema.

TECHNIC:

Eczema—Acute:

Distance from Lamp:

30 inches for first three treatments, reducing distance with each successive treatment 6 inches, to a minimum distance of 18 inches.

Time of exposure:

First treatment five minutes, increasing two to three minutes with each successive treatment up to a maximum of fifteen minutes.

Frequency of Treatment:

Two to three days' interval.

Eczema—Chronic:

Distance from Lamp:

30 inches first treatment, gradually decreasing 6 inches each successive treatment to a minimum of 1 foot.

Time of exposure:

First treatment five minutes, increasing three minutes with each successive treatment to a maximum of twenty minutes.

Frequency of Treatment:

First three treatments forty-eight hours interval; then twice weekly. General body radiations (see page 10).

EMPHYSEMA:

See Asthma.

ENDOMETRITIS:

See Gynecology.

ENURESIS:

Several authors claim that the Alpine Sun Lamp is a valuable modality in the treatment of this annoying affliction, observing complete relief in both children and adults after several weeks of general body radiations.

TECHNIC:

General body radiations (see page 10).

ERYTHEMA PERNIO:

Whether of a neurotic type, or induced simply by cold, this condition may be quickly alleviated by applications of quartz light therapy and the intense itching promptly relieved. In the cases of neurotic patients general body radiation may be administered to improve the general condition. (See page 10.)

TECHNIC:

Distance from Lamp:

18 inches.

Time of exposure:

First exposure five minutes, increasing each subsequent exposure two to three minutes at each treatment.

Frequency of Treatment:

Two to three days' interval.

The technical directions for treatment of patients are based on reports of satisfactory results in the diseases mentioned. Each case, however, demands careful observation and due consideration of the tolerance of patient's skin under exposure to the rays.

ERYTHEMA MULTIFORME:

Bearing in mind the angioneurosis as well as the autointestinal intoxication usually present, it has been found good practice to supplement the local treatment by a course of general body radiations. Patient will usually respond quickly and the lesions clear up without further care than mild, soothing lotions applied during the intervals between treatments.

In pruritic cases the itching usually subsides after the first or second treatment.

TECHNIC:

Local Treatment:

Distance from Lamp:

First treatment 3 feet, decreasing 6 inches two following treatments to a minimum of 2 feet.

Time of exposure:

First treatment five minutes, increasing two to three minutes according to the tolerance of the patient, up to a maximum of twelve to fifteen minutes.

Frequency of Treatment:

Two to three days' interval.

General body radiations (see page 10).

ERYSIPelas:

Generally, if the erysipelatous infection is recognized in its early stages the duration of the disease may be materially reduced by treatment with the Alpine Sun Lamp. One author states:

“We made about eight or ten exposures beginning December 28th, and at the date of writing, six months later, she has a complexion which, expressed in her own words, is ‘the envy of all her friends.’”

The powerful bactericidal properties of ultra violet light play an important part in the annihilation of the bacteria, and for this reason quartz light therapy is the favorite mode of treatment with many physicians.

TECHNIC:

Distance from Lamp:

First treatment 3 feet distance, decreasing 6 inches with each successive treatment until a minimum of 18 inches has been reached.

Time of exposure:

First treatment five minutes, increasing two to three minutes with each successive treatment up to a maximum of twelve minutes.

Frequency of Treatment:

Two to three days' interval.

FOLLICULITIS DECALVANS:

Folliculitis decalvans requires strenuous treatment. Before radiating, the pustules should be carefully opened and evacuated. If the hair papillae have not already been destroyed by the disease it is usually a matter of considerable gratification to the patient to observe the prompt way in which the falling of the hair is arrested.

TECHNIC:

Distance from Lamp:

First treatment 24 inches, gradually decreasing 6 inches at each subsequent radiation until a minimum distance of 1 foot has been reached.

Time of exposure:

First treatment five minutes, increasing two to three minutes, according to the tolerance of the patient, up to a maximum of twenty to twenty-five minutes.

Frequency of Treatment:

Two to three days' interval.

FURUNCULOSIS:

If taken before it begins to suppurate, a boil may be readily aborted by an intensive compression treatment with the Kromayer Lamp. One treatment will usually suffice.

One author reports that out of five patients with furunculosis in the axilla only one came back with a relapse, after one week. The others were definitely cured by from two to five treatments with the lamp.

TECHNIC:

Where the Alpine Sun Lamp only is available, cover the surrounding tissue with suitable material, leaving an opening slightly larger than the area affected and radiate for ten to fifteen minutes with the lamp at 12 or 15 inches distant.

Repeat two to three days.

GANGRENE:

If the destructive process has not gone too far, mild stimulation of the affected parts by Quartz Light radiations may prove decidedly helpful. Good results are reported by several writers.

TECHNIC:

Distance from Lamp:

First treatment 3 feet, reducing 6 inches at each subsequent radiation to a minimum of 18 inches.

Time of exposure:

First treatment five minutes, increasing two to three minutes each exposure up to fifteen or twenty minutes.

Frequency of Treatment:

First three treatments forty-eight hours interval; then twice weekly.

GASTRO INTESTINAL DISEASES:

Marked benefit in many cases of gastro intestinal diseases, including gastric ulcer, hyperacidity and hypersecretion is claimed by various writers. Some remarkably favorable recoveries, with improvement in appetite and general condition, have been attributed to general radiation with the Alpine Sun Lamp.

TECHNIC:

General body radiations (see page 10), increasing 100% the time of exposure over abdominal region.

GOUT:

The stimulation of the functions of the skin, particularly where the patient shows a faulty heart action, is of great advantage in the treatment of gout. The resulting reduction of blood pressure and the effect on the general metabolism are also of benefit in these cases.

TECHNIC:

Local Treatment:

Distance from Lamp:

15 inches.

Time of exposure:

First radiation three minutes, increasing one minute with each subsequent exposure up to a maximum of ten or fifteen minutes.

Frequency of Treatment:

Daily for first three exposures, reducing to two or three times a week.
General body radiations (see page 10).

GUN SHOT WOUNDS AND POST OPERATIVE SURGICAL CASES:

The Alpine Sun Lamp has been employed in the treatment of gun shot wounds in many of the U. S. Army Base Hospitals, proving an effective means of clearing up sluggish and infected cases. Badly suppurating gun shot wounds of several months' standing have been found to put on a healthy appearance and clear up in from two to seven treatments, over a period of two to three weeks.

TECHNIC:

First cleanse wound thoroughly and carefully remove all pus, scabs, etc., so that light can reach every part of the wound. The rays not only stimulate healthy granulation but the bactericidal effect is assisted by removing all obstructions to the light.

Distance from Lamp:

First treatment 24 inches, gradually reducing 3 inches with each subsequent exposure to a minimum of 15 inches.

Time of exposure:

First treatment five minutes, increasing one to two minutes each subsequent exposure, according to the tolerance of the patient.

Frequency of Treatment:

Daily for first three treatments, then every second or third day.

GYNECOLOGY:

See Amenorrhea.

Many workers in this field have reported brilliant success in a variety of pelvic inflammatory conditions, including Neisserian Infections, Pruritus Vulvae, Dysmenorrhea, Cervical Erosions, Vaginitis, Pelvic Cellulitis, Colpitis Granularis, Myomata of the Uterus, Catarrh of the Cervix Uteri, Metrorrhagia, Endometritis, Leucorrhea, Pyosalpinx and Ovaritis.

The bactericidal action of the rays is most important, particularly where gonococci are present and the local stimulating action on the affected parts apparently proves more effective when augmented by external surface radiation over the entire torso. This holds wherever the general condition has become affected as a result of the disease.

With some inconvenience and with careful handling, the Alpine Sun Lamp may be used for the local radiations, per vagina, through a speculum. The Kromayer Lamp, however, is much better adapted to this

purpose and has suitable applicators (Plank Applicator, Sharpe Applicator) to conveniently introduce and direct the rays where required.

It is not in any way suggested that necessary surgical or other measures be neglected in these cases.

TECHNIC:

Local Treatment:

Pruritis Valvae and vaginitis (*where same can be reached by surface radiation*) with the Alpine Sun Lamp.

Distance from Lamp:

First treatment 30 inches, gradually diminishing 6 inches each treatment to a minimum of 18 inches.

Time of exposure:

First treatment five minutes, increasing two to three minutes each exposure to a maximum of fifteen minutes. Patient's tolerance to be carefully borne in mind.

Frequency of Treatment:

Two to four days interval.

Local Treatment Through Speculum; Kromayer Lamp:

Time of exposure:

First treatment five to six minutes, increasing one to two minutes according to patient's tolerance up to a maximum of ten to fifteen minutes.

Frequency of Treatment:

Two to three days' interval.

Where it is necessary to treat via speculum with Alpine Sun Lamp, place lamp as close to speculum as possible, six to eight inches, and double exposures given above for Kromayer Lamp. Care must be taken to cover all surface areas.

General body radiations with Alpine Sun Lamp, where indicated. (See page 10.)

HAY FEVER AND RHINITIS:

Favorable results are reported in the treatment of Rhinitis and Hay Fever. In both cases general body radiation should be given and, more particularly in the case of hay fever, local application well into the antrum by means of a speculum. This may be more conveniently administered, however, by the Kromayer Lamp and straight quartz rod applicator.



TECHNIC:

Local Treatment:

Distance from Lamp:

Through speculum close to diaphragm opening.

Time of exposure:

Three to five minutes, increasing one to two minutes with each exposure.

Frequency of Treatment:

First three treatments forty-eight hours' interval; subsequently twice weekly.

General body radiations (see page 10).

HERPES ZOSTER:

Much relief can be afforded the patient, not only from the severity of the eruption, but from the accompanying neuralgic pains, if treatment is given at the onset of the attack. Radiation with the Alpine Sun Lamp will often arrest the development of cutaneous manifestation and greatly reduce its duration.

TECHNIC:

Distance from Lamp:

First treatment 3 feet, gradually reducing according to patient's tolerance to minimum of two feet.

Time of exposure:

First treatment five minutes, increasing each treatment two to three minutes to a maximum of twelve minutes.

Frequency of Treatment:

Two to four days' interval.

HYSTERIA:

See Neurasthenia.

ICHTHYOSIS:

Where the patient is willing to submit to rather severe burning, even to the point of vesication, this condition may be greatly relieved by the Alpine Sun Lamp.

TECHNIC:

Distance from Lamp:

18 inches.

Time of exposure:

First treatment two minutes, increasing by three minutes each treatment, according to patient's tolerance, up to a maximum of thirty minutes.

Frequency of Treatment:

Forty-eight hour intervals for first three treatments, then twice weekly.

IMPETIGO:

The bactericidal properties of the ultra violet rays make the Alpine Sun Lamp an important factor in the treatment of this disease.

TECHNIC:

Distance from Lamp:

First treatment 30 inches, reducing 6 inches each radiation to a minimum of 18 inches.

Time of exposure:

First three treatments five minutes, increasing subsequently two to three minutes each treatment, to a maximum of fifteen minutes.

Frequency of Treatment:

Forty-eight hour intervals for first three treatments, then twice weekly.

INSOMNIA:

There have been many reports of excellent results; in some cases following a single exposure. In most cases the second and following nights patients experience sound sleep. It is preferable to err on the side of under-exposure at the first two treatments.

TECHNIC:

General body radiations (see page 10).

KERATOSIS PILARIS:

Keratosis pilaris responds very readily to local radiations with the Alpine Sun Lamp. Mild reaction with slight exfoliation usually suffices to relieve this condition.

TECHNIC:

Distance from Lamp:

First three treatments 30 inches, then reduce 6 inches each radiation to minimum of 18 inches.

Time of exposure:

First treatment five minutes, increasing two to three minutes at each subsequent radiation to a maximum of fifteen or twenty minutes.

Frequency of Treatment:

Forty-eight hour intervals for first three treatments, then twice weekly.

LEUCORRHEA:

See Gynecology.

LICHEN PLANUS:

Lichen Planus responds readily to treatment with the Alpine Sun Lamp, which promptly alleviates the pruritic condition and is much preferred by the patient to unpleasant salves.

TECHNIC:

Distance from Lamp:

First three treatments 30 inches, reducing each subsequent exposure 6 inches, to a minimum of 1 foot.

Time of exposure:

First exposure five minutes, increasing two to three minutes each exposure to a maximum of twenty minutes.

Frequency of Treatment:

Two to four days' interval.

LUMBAGO:

Uniformly favorable results are reported in treating lumbago by fairly intense radiations with the Alpine Sun Lamp, over the lumbar region. In some instances the pain has completely subsided after one severe burning.

TECHNIC:

Distance from Lamp:

First treatment 2 feet, reducing it to 18 inches at the second treatment.

Time of exposure:

First two radiations five to seven minutes, increasing subsequently to ten minutes, bearing in mind the patient's tolerance.

Frequency of Treatment:

Two to four day intervals.

LUPUS ERYTHEMATOSUS:

Most of the leading Dermatologists in this country, as well as abroad, claim that lupus erythematosus succumbs readily to Quartz Light Therapy. Treatment is practically painless and the cosmetic effect is important, as the scarring resulting from the lesions is reduced to a minimum.

Strenuous treatment should be given. Violent reaction even to a severe burning with resultant vesication is necessary to secure the best results. It is strongly recommended that patients be given general body radiations concurrently. This aids the intensive local treatments by improving the patient's general condition.

It is preferred by some writers to administer a very severe burning

once in four weeks, with milder radiations at intervals of three or four days in between. Results by this method appear to be very satisfactory.

TECHNIC:

Local Treatment:

Distance from Lamp:

First treatment 2 feet, reducing 3 inches at each subsequent treatment to a minimum of 1 foot.

Time of exposure:

First treatment five minutes, increasing each subsequent exposure two to three minutes up to a maximum of thirty minutes.

Frequency of Treatment:

First three treatments forty-eight hour intervals, then twice weekly. General body radiations (see page 10).

NOTE: For the local treatment the Kromayer Lamp may be used to advantage. Exposures can be more easily localized and time is from two to five minutes, lamp 2 inches distant.

LUPUS VULGARIS:

In most cases the use of the Kromayer Lamp is recommended. Where extensive lesions are encountered of a fairly superficial nature, good results may be obtained by intense surface radiations with the Alpine Sun Lamp.

TECHNIC:

Distance from Lamp:

First treatment 2 feet, gradually decreasing 3 inches each exposure to a minimum of 1 foot.

Time of exposure:

First treatment ten minutes, increasing each exposure by five minutes up to thirty or thirty-five minutes.

Frequency of Treatment:

Two to four days interval.

METRORRHAGIA:

See Gynecology.

MARASMUS:

The Alpine Sun Lamp is a valuable modality in this condition and is recommended by pediatricians in the treatment of infants suffering from marasmus. Care should be taken in treating each individual case.

TECHNIC:

General body radiations (see page 10).

Reduce time of exposure one-third to one-half, watching carefully the sensitiveness of the patient's skin. Protect the eyes by plackets of cotton tied by a thread passed around the head.

MYALGIA:

For most forms of Myalgia the Alpine Sun Lamp offers quick relief to the patient.

TECHNIC:

Distance from Lamp:
21 inches.

Time of exposure:
Five to ten minutes, according to patient's susceptibility.

Frequency of Treatment:
First three treatments every other day, thereafter twice weekly.

MYOMATA OF THE UTERUS:

See Gynecology.

NEISERRIAN INFECTIONS:

See Gynecology.

NEURALGIA AND ARTHRALGIA:

Many reports show quick response to Quartz Light Therapy even in severe and obstinate cases.

TECHNIC:

Distance from Lamp:
Radiate whole area covered by the affected nerves with lamp 21 inches distant.

Time of exposure:
Three to seven minutes, according to patient's tolerance.

Frequency of Treatment:
Every other day for first three treatments, then twice weekly.

NEURASTHENIA AND HYSTERIA:

The Alpine Sun Lamp has proven of great benefit in these cases. Several authors claim gratifying results from general body radiations, particularly in post operative cases and in those showing angioneurotic, arterio spastic and paresthetic conditions.

TECHNIC:

General body radiations (see page 10).

The technical directions for treatment of patients are based on reports of satisfactory results in the disease mentioned. Each case, however, demands careful observation and due consideration of the tolerance of patient's skin under exposure to the rays.

NEURITIS:

The Alpine Sun Lamp has proved of marked value in the treatment of neuritis. In many cases one treatment is found to give considerable relief.

TECHNIC:

Distance from Lamp:

30 inches.

Time of exposure:

First treatment five minutes, increasing two to three minutes each exposure up to a maximum of fifteen minutes.

Frequency of Treatment:

Three to four days' interval.

OSTEOMYELITIS:

The Alpine Sun Lamp is unquestionably a favorite modality in treatment of this condition. One author observed in a case of osteomyelitis of the leg, which had been operated upon repeatedly, that the circulatory disturbances which existed for a long time improved by treatment with the Alpine Sun Lamp and the edges of the retracted scars were raised to the level of the surrounding normal skin.

Another author reports a case of osteomyelitis of the upper third of the right humerus. Previous to the author's treatment with the lamp another physician had put in a through and through drain. Under Quartz Light treatment the patient showed rapid improvement and after the fifth exposure only leucocytes and serum were found, and after one month patient was discharged cured with complete use of his arm.

TECHNIC:

Distance from Lamp:

15 inches.

Time of exposure:

First treatment three minutes, increasing one minute each subsequent treatment up to ten minutes.

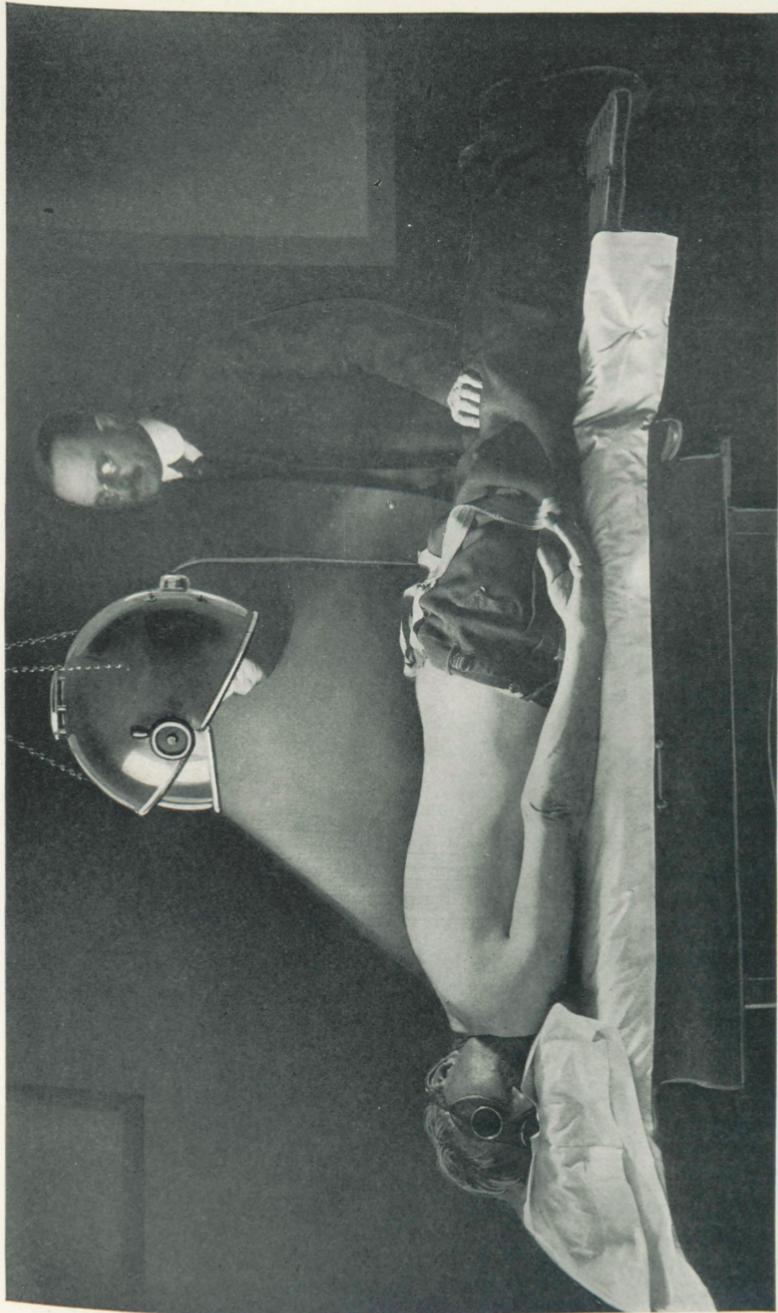
Frequency of Treatment:

Two to three days' interval.

OVARITIS:

See Gynecology.

PLATE C—A CASE OF NEURITIS—DISTANCE RADIATION WITH ALPINE SUN LAMP SUSPENDED FROM CEILING



PAGET'S DISEASE:

Some gratifying results have been secured by intense surface radiation with the Alpine Sun Lamp.

TECHNIC:

Distance from Lamp:

First treatment 30 inches, decreasing the distance each successive treatment 2 inches, until a minimum of 14 inches has been reached.

Time of exposure:

First treatment five to seven minutes, according to susceptibility of patient's skin, increasing each successive treatment by two minutes until a maximum of twenty-five minutes has been reached.

Frequency of Treatment:

Every second day for first three treatments, then two or three times weekly, according to indications.

PELVIC CELLULITIS:

See Gynecology.

PERITONITIS—Tubercular:

See Tuberculosis.

PITYRIASIS ROSACEA:

The Alpine Sun Lamp is generally conceded to give a reliable means of clearing up the lesions and promptly alleviating the accompanying pruritus.

TECHNIC:

Distance from Lamp:

First treatment 30 inches, decrease distance each subsequent treatment 1 inch, until a minimum distance of 20 inches has been reached.

Time of exposure:

First treatment four to seven minutes, according to resistance of patient's skin to the rays, increasing each subsequent treatment to a maximum of eighteen to twenty minutes.

Frequency of Treatment:

Every other day for first three or four treatments, then twice each week.

PLANT POISONING:

See Dermatitis Venenata.

PNEUMONIA:

Where electric current is available in the patient's home the Alpine Sun Lamp has proven a most valuable adjuvant in the treatment of pneumonia. It is stated that in one Hospital, where they have had a large number of cases of Pneumonia, since using the Alpine Sun Lamp (18 months) not a single case of this kind has been lost.

TECHNIC:

Distance from Lamp:

24 inches.

Time of exposure:

First treatment three to five minutes, according to susceptibility of patient's skin, increasing one to two minutes each radiation.

Frequency of Treatment:

Daily, radiating torso anteriorly and posteriorly on successive days.

PRURITUS:

Pruritus Senilis, Pruritus Ani, Pruritus Vulvae, all respond readily to treatment with the Alpine Sun Lamp. The first treatment usually affords marked relief, and two to six radiations often eliminate the condition entirely.

TECHNIC:

Distance from Lamp:

First treatment 30 inches, decreasing distance 1 or 2 inches each subsequent treatment until a minimum distance of 18 inches has been reached.

Time of exposure:

First treatment five to seven minutes, increasing by two minutes each subsequent treatment until a maximum of eighteen to twenty minutes has been reached.

Frequency of Treatment:

Every other day, first three treatments; then two or three times weekly if necessary.

PSORIASIS, PARA-PSORIASIS, SEBORRHOEIC PSORIASIS:

These cases respond readily to treatment with the Alpine Sun Lamp and the individual lesions quickly disappear. It is true, as with other methods of treatment, that after a time the trouble will recur. It is claimed, however, that where this is the case the subsequent lesions disappear more readily at each recurrence. This treatment is also much more agreeable to the patient than the usual local applications.

Strenuous radiations are necessary with marked desquamation, and

before exposure scales should as far as possible be removed, to allow the rays to reach the surface of the skin.

TECHNIC:

Distance from Lamp:

30 inches, decreasing 2 inches each subsequent treatment until a minimum of 14 inches has been reached.

Time of exposure:

First treatment seven to twelve minutes, increasing by three minutes each following treatment until a maximum of thirty to forty-five minutes has been reached, depending on intensity and duration of the disease.

Frequency of Treatment:

Every other day first four treatments then two or three times each week.

PYOSALPINX:

See Gynecology.

RENAL DISEASES:

It is held that because of the interrelation existing between the activities of the skin, the heart and the kidney, it is sufficient proof that a modality which relieves the heart and stimulates the skin will affect the functions of the kidneys likewise.

TECHNIC:

General body radiations (see page 10).

RHINITIS:

See Hay Fever.

ROSACEA:

It depends on the conditions which of the two lamps, Kromayer or Alpine Sun Lamp, is indicated. Dermatologists consider three stages of Rosacea; the hyperaemic, the telangiectetic and the hypertrophic. Rosacea of the nose when associated with telangiectasis will not succumb to surface radiations alone, likewise the hypertrophic type. The hyperaemic type readily succumbs to mild radiations with the Alpine Sun Lamp, while the hypertrophic and telangiectetic conditions demand treatment with Kromayer Lamp, using contact method and firm compression.

TECHNIC:

Alpine Sun Lamp: Rosacea—Hyperaemic Type:

Distance from Lamp:

First treatment 30 inches, reduce each subsequent treatment by 3 inches until a minimum of 15 inches has been reached.

Time of exposure:

Four to seven minutes, increasing each subsequent treatment by two or three minutes until a maximum of fifteen minutes has been reached.

Frequency of Treatment:

Every other day for first three or four treatments, then twice weekly, bearing in mind the patient's susceptibility.

Kromayer Lamp: Hypertrophic and Telangiectetic Type:

Distance from Lamp:

Immediate contact under firm pressure with clear quartz window and suitable quartz lens.

Time of exposure:

One to three minutes, according to conditions.

Frequency of Treatment:

Ten days or two weeks, increasing time of exposure if necessary.

SCIATICA:

The Alpine Sun Lamp may be relied upon to relieve the pain and in many cases complete recovery is reported in from five to twenty treatments. The whole region involved should be exposed at each treatment.

TECHNIC:

Distance from Lamp:

First treatment 24 inches, decreasing by 2 inches each subsequent treatment until a minimum of 18 inches has been reached.

Time of exposure:

Four to six minutes, first treatment, according to susceptibility of patient, increasing time each subsequent treatment by three minutes, until a maximum of fifteen minutes has been reached.

Frequency of Treatment:

Every other day first three treatments, then twice weekly.

SEBORRHOEA:

Seborrhea simplex, or oily skin, may readily be controlled by radiations with the Alpine Sun Lamp. The Alpine Sun Lamp is in favor with most patients in preference to lotions, greasy salves, etc. One leading author states that, as a result of treatment with the Alpine Sun Lamp exfoliation follows and with it myriads of microbacilli of seborrhea and the bottle bacilli of Unna, which are the casual factors.

TECHNIC:

Alpine Sun Lamp:

Distance from Lamp:

30 inches first treatment, reducing distance each subsequent treatment by 1 inch until a minimum of 20 inches has been reached.

Time of exposure:

First treatment five to seven minutes, increasing each following treatment by three minutes until a maximum of fifteen minutes has been reached.

Frequency of Treatment:

First three treatments every other day, thereafter every three or four days.

SEBORRHOEIC DERMATITIS:

See instructions under Eczema, increasing slightly the time of exposure given.

SURGICAL CASES—Post-operative:

See Gunshot Wounds.

TENOSYNOVITIS:

Alpine Sun Lamp is indicated and a leading New York Orthopedic Surgeon states as follows:

“Two cases of Teno-Synovitis, one of the heel cord, the other the flexor of the index finger, were cured quickly by this treatment alone.”

TECHNIC:

Distance from Lamp:

First treatment 21 inches with rays directed over area to be treated. Each subsequent treatment reduce distance by 3 inches until a minimum of 15 inches has been reached.

Time of exposure:

Four to six minutes, susceptibility of patient to be considered. Increase time each subsequent treatment two minutes, up to maximum of ten minutes.

Frequency of Treatment:

Every second day first three treatments, then twice weekly.

TETANUS:

The Alpine Sun Lamp has proved of considerable importance in Army hospitals both here and abroad, in preventing tetanus infection and in treating it in gunshot wounds.

TECHNIC:

Distance from Lamp:

First treatment 18 inches, gradually reducing to a minimum of 15 inches after first two or three treatments.

Time of exposure:

First treatment five minutes, increase time of subsequent treatments by one minute until maximum of twelve minutes has been reached.

Frequency of Treatment:

Every other day first three treatments, then twice weekly.

TUBERCULOSIS:

See also Ankylosis.

In many manifestations of tuberculosis the Alpine Sun Lamp has received wide recognition as one of the most important aids in the treatment of this disease.

The literature on this subject is extensive and is worthy of special study, including the writings of Rollier and other European authors; of the Trudeau School and the J. N. Adam Memorial Hospital, and of Dr. Edgar Mayer, Dr. T. Howard Plank and Dr. A. H. Bingham. Where a seat of infection is internal it is at present a matter of speculation whether a direct action is produced. The indirect action of general body radiations is undoubtedly. The

patient's resistance is increased, the blood count is improved, his temperature falls, his weight rapidly increases, and in the words of one writer, "he takes a new lease on life." Tubercular bones and joints, Pott's disease, and discharging sinuses require, in addition to general body radiations, more intense local radiations with the Alpine Sun Lamp. Tubercular rectal fistulae and tubercular laryngitis may be treated locally with the Kromayer Lamp, using special applicators designed for the purpose.

TECHNIC:

The following routine is a favorite one with many authorities:

1. As a rule more care must be used in planning for the sicker patients, that is those who are in bed with fever or those who are quite weak.
2. In all cases, start gradually to avoid burning. The lamp should be 36 inches away, in most cases using two to three minutes on each of the four parts. This time is usually increased very gradually until skin sensitiveness, that is burning, stops—then the increases can be a minute a day on each of the four parts.
3. The four parts of the body should be exposed an equal length of time, the increases should be equal on each part.
4. Expose parts in the following order:—first the front of the knees, then (patient turns over) on the back of knees. Then move the table down and apply to back. Again (patient turns over) apply to front of the chest. In abdominal cases the abdominal application is given last.
5. Work up by increases of one minute a day on each of the four parts until ten minutes on each part is reached. Then bring the lamp one-half inch closer, each day holding to ten minutes as before until we get down to twenty-four inches. Then increase the time one minute per day until 20 minutes is reached.
6. In abdominal cases start application of light at 24 inches for one minute. After the first week, if patient does not burn, increase one minute every other treatment until ten minutes is reached. Then draw up to ten. Keep lowering the lamp one-half inch until it is within sixteen inches.
7. Plan for sicker ones with physician in beginning and at any time there is a problem. Keep temperature record so that results of treatment can be watched. Also note any symptoms that bear specially on effects of treatment.
8. Remember the daily cleaning of the burner with absorbent cotton and grain alcohol. Also keep the lamp closed when not in use.

Local Treatment of Sinuses:

Cut a hole in a piece of paper corresponding to the size of the sinus, including a small margin of healthy skin, placing it in position to protect the surrounding surface from burning.

Distance from Lamp:

20 inches.

Time of exposure:

First treatment three minutes, increasing two minutes at each subse-

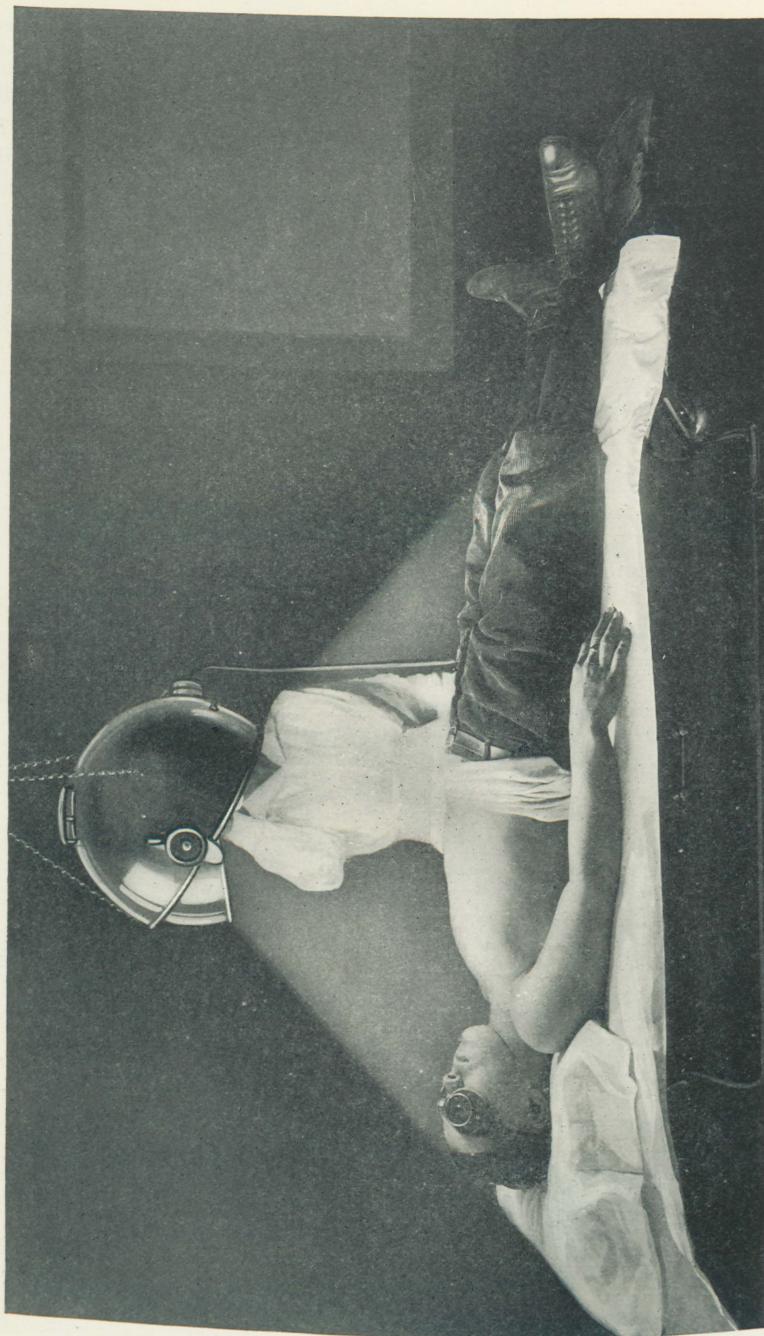


PLATE D—A CASE OF ECZEMA—DISTANCE RADIATION OF EXTENSIVE LESIONS WITH ALPINE SUN LAMP

quent exposure up to twenty or twenty-five minutes.

Frequency of Treatment:

Two and three or four days, according to patient's susceptibility.

General body radiations (see page 10). In advanced cases the first exposures should be very mild to avoid a temporary rise in temperature. They should be repeated daily, and in some institutions the practice is to radiate at first treatment the feet only; then to the knees, gradually increasing the area exposed until the whole body is included. Up to this point the distance and time of exposure should remain constant, gradually increasing the dosage subsequently, as described under the "General Body Radiations." The patient's tolerance should at all times be carefully borne in mind and a severe erythema and exfoliation avoided.

TUBERCULAR LYMPH GLANDS:

See Cervical Glands.

TUBERCULOSIS VERRUCOSA CUTIS:

See Lupus Vulgaris.

ULCERS:

Chronic ulcers of various kinds, including X-Ray ulcers, respond quickly to treatment with the Alpine Sun Lamp.

The object in view being mild stimulation and simultaneous sterilization of the surface, the dosage should not be excessive. Healthy granulation follows, with regeneration of the epithelium.

TECHNIC:

Distance from Lamp:

First treatment 30 inches, gradually reducing to a minimum of 18 inches.

Time of exposure:

First treatment five minutes, increasing each subsequent exposure five minutes up to a maximum of twenty minutes.

Frequency of Treatment:

Two to four days interval.

URTICARIA:

In Chronic Urticaria surface radiations with the Alpine Sun Lamp are generally recognized as a reliable means of relieving the intense itching and clearing up the condition. Mild applications are sufficient, and it is recommended to radiate the entire body for the systemic effect of the rays.

TECHNIC:

Time of Exposure:

General body radiations (see page 10).

Should be doubled over the affected areas.

VAGINITIS:

See Gynecology.

X-RAY DERMATITIS:

This condition responds readily to mild radiation with the Alpine Sun Lamp. The local stimulation tends to prevent the atrophic changes of the skin which otherwise may result.

TECHNIC:

Distance from Lamp:

24 inches.

Time of exposure:

Three minutes first treatment, increasing one minute each subsequent radiation to a maximum of ten minutes.

Frequency of Treatment:

Daily.

X-RAY ULCERS:

See Ulcers.

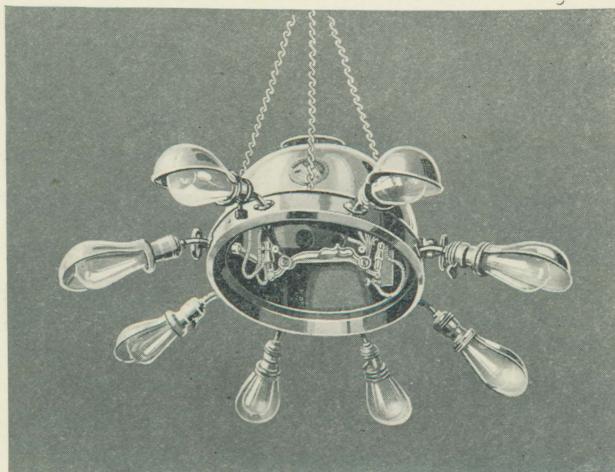


FIG. 7. ALPINE SUN LAMP WITH HAGEMANN RING OF INCANDESCENT LAMPS

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